

# TYPICAL THERMAL AND ELECTRICAL PROPERTIES FOR PNA HDPE PRODUCTS

PROPERTY	TEST METHOD	UNITS	VALUE
Vicat Softening Temp.	ASTM D 1525	°F	255 <sup>0</sup>
Heat Distortion Temp.	ASTM D 648	°F	172 <sup>0</sup>
Thermal Expansion	ASTM D 696	in/in/°F	1 x 10 <sup>-4</sup>
Thermal Conductivity	ASTM C 177	BTU, in/ft <sup>2</sup> /hrs/°C	4.7
Volume Resistivity	Din 53482	Ω/cm	>10 <sup>16</sup>
Surface Resistance	Din 53482	Ω	>10 <sup>13</sup>
Dielectric Strength	Din 53481	KV/cm	700-850

## TYPICAL PHYSICAL PROPERTIES:

### PNA HIGH MOLECULAR WEIGHT HDPE PRODUCTS

PROPERTY	ASTM (CONDITION)	UNIT	VALUE
Density (Black)	D 1505	g/cm <sup>3</sup>	0.955
Melting Point	DSC	°F	261
Melt Index i2.16	D 1238 (E)	gm/10 min.	.11
Tensile Yield Strength	D 638	psi	3300
Elongation at Break	D 638 Specimen I	%	800
Tens. Modulus of Elast.	D 638	psi	113.000
Flexural Modulus	D 790	psi	136.000
Vicat Softening Temp.	D 1525	°F	255
Brittleness Temp.	D 746	°F	← 103
Heat Distortion Temp.	D 648	°F	172
Thermal Expansion	D 696	in/in/°F	1 x 10 <sup>-4</sup>
Rockwell Hardness L	D 785	—	49
Shore Hardness D	D 2240	—	68

*The data listed was determined on press molded test specimens, and may therefore deviate from specimens taken from pipes.*

Classification Type/Class/Cat./Grade	D 1248	III/C/5/P34
Cell classification	D 3350	335440
PPI Recommended Designation		PE 34

*Designated tests are made in accordance with current issues of ASTM Standard Testing Methods. Copies of these methods are available from the America Society for testing and Materials, 1916 Race Street, Philadelphia PA 19103, on request.*